

5. *Hammaptera augustaria*.

Larentia augustaria, Herr.-Schäff. Samml. aussereur. Schmett. p. 66, fig. 356¹.

Eucosmia augustaria, Herr.-Schäff. loc. cit. p. 82².

Hab. MEXICO, Coatepec (*coll. Schaus*); GUATEMALA, Panima in Vera Paz, Panajachel 5000 feet, San Isidro 1600 feet (*Champion*); COSTA RICA, Rio Sucio (*Rogers*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—BRAZIL¹.

Varies as regards the black border of the secondaries, some specimens having these wings entirely yellow.

6. *Hammaptera subguttaria*.

Larentia subguttaria, Herr.-Schäff. Samml. aussereur. Schmett. pp. 66, 83, figg. 406, 407¹.

Cidaria subguttaria, Guen. Sp. gén. des Lép. x. p. 458²; Walk. Cat. xxv. p. 1391³; Snell.

Tijdschr. voor Ent. xvii. p. 94⁴.

Scotosia vacillata, Walk. Cat. xxv. p. 1350⁵.

Pterocypha imperviata, Walk. loc. cit. p. 1370⁶.

Hab. MEXICO, Jalapa (*M. Trujillo*); GUATEMALA, Cerro Zunil 4000 to 5000 feet, Zapote, Dueñas, San Gerónimo (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet, Rio Sucio (*Rogers*); PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—COLOMBIA⁵, Bogota^{4 5 6}; VENEZUELA^{1 2 3 5 6}; ECUADOR.

A common species throughout the greater part of our region. It varies in the distinctness of the pinkish-white lines crossing the primaries.

7. *Hammaptera combustaria*.

Larentia combustaria, Herr.-Schäff. Samml. aussereur. Schmett. p. 66, fig. 355¹.

Eucosmia combustaria, Herr.-Schäff. loc. cit. p. 82².

Cidaria combustaria, Snell. Tijdschr. voor Ent. xvii. p. 93³.

Hab. GUATEMALA, Volcan de Atitlan 2500 feet (*Champion*).—COLOMBIA³.

One specimen from Guatemala very similar to Herrich-Schäffer's figure, but not so highly coloured. I do not consider *H. combustaria*, Herr.-Schäff., to be conspecific with *H. jacintharia* (Guen.), with which it is united by Guenée, Walker, and Snellen.

8. *Hammaptera* (?) *cylon*, sp. n. (Tab. LVI. fig. 3.)

Primaries reddish-brown, paler about the centre, the base and a wide band before the middle crossing from the costal to the inner margin dark brown, beyond which are several indistinct waved brown lines, two small white dots near the apex, the marginal line black, the fringe reddish-brown; secondaries brownish-cream-colour, dusky at the anal angle, above which two faint waved lines partly cross the wing, the marginal line black, the fringe fawn-colour. Expanse $1\frac{3}{4}$ inch.

Hab. MEXICO, Amecameca in Morelos (*F. D. G.*).

One specimen, captured by Mr. Godman in April 1888.

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CIDARIA.

Cidaria, Treitschke, Schmett. Europ. vi. 2, p. 140 (1828); Walker, Cat. xxv. p. 1376.

1. *Cidaria polyphonta*, sp. n. (Tab. LVI. figg. 1, ♂; 4, ♀.)

Male. Primaries dark sage-green, crossed from the costal to the inner margin by five reddish-brown waved bands, a wide white band crossing beyond the middle but not reaching the outer margin, two pinkish spots near the anal angle, and a row of small white dots along the outer margin, the marginal line dark brown, the fringe brown, whitish near the anal angle; secondaries uniformly greyish-black, the fringe pale brown; the underside dusky-brown, with a white band on the primaries as above: head and thorax green, the upperside of the abdomen brown, the antennæ and palpi black, the underside of the abdomen and the legs pale brown.—*Female*. Very similar to the male, but the primaries with the white band more broken into spots and with a very distinct white dot close to the inner margin. Expanse, ♂ 2, ♀ $2\frac{1}{10}$ inches.

Hab. MEXICO, Coatepec (*coll. Schaus*); COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).

I have only seen two specimens of this fine species—a male from Costa Rica and a female from Eastern Mexico.

2. *Cidaria* (?) *prema*, sp. n. (Tab. LVI. fig. 5, ♂.)

Male. Primaries pale greenish-brown, crossed by darker greenish-brown bands, the costal margin with six somewhat V-shaped black marks which are edged with white, a submarginal waved white line extending from the costal margin near the apex to the anal angle, a black streak at the apex, joining a large bluish-grey spot below it on the outer margin, a row of small black spots crossing the wing beyond the middle, and a white spot on the inner margin, the marginal line black, the fringe alternately black and greenish-white; secondaries grey, darker round the outer margin from the apex to the anal angle, and with two faint waved dark grey lines—the first, beyond the middle, extending from the costal to the inner margin, the second submarginal, extending from the apex to the anal angle,—the fringe alternately black and greenish-white; the underside greyish, with the black markings very much as above, but much more distinct on the secondaries: head white, the antennæ and palpi black, the thorax and tegulæ pale greenish-brown, the abdomen and legs brownish-grey. Expanse $1\frac{3}{4}$ inch.

Hab. MEXICO, Las Vigas (*coll. Schaus*).

One specimen. Mr. Schaus informs me that this species is common at Las Vigas.

3. *Cidaria* (?) *pomponia*, sp. n. (Tab. LVI. figg. 6, ♂; 7, ♀.)

Male. Primaries pale green, crossed before the end of the cell by a wide blackish-brown band, beyond which are two large patches of the same colour—the first near the apex, the second close to the anal angle,—a streak at the end of the cell and two small spots beyond it white, the marginal line spotted with dark brown; secondaries yellowish-white, the fringe yellowish: head and thorax green, the abdomen yellowish-white.—*Female*. Similar to the male, but with the markings on the primaries smaller and more distinct; the underside of the primaries pale yellow, with the costal margin and apex greenish, and the black markings as above, but not so distinct,—that of the secondaries brownish-grey, thickly irrorated with brown scales, and crossed beyond the middle by two faint brown lines. Expanse, ♂ $1\frac{1}{2}$, ♀ $1\frac{7}{10}$ inch.

Hab. MEXICO, Milpas in Durango 5900 feet (*Forrer*), Real del Monte in Hidalgo (*M. Trujillo*).

Three males and one female, the males all in poor condition.

4. **Cidaria (?) damo**, sp. n. (Tab. LVI. figg. 8, ♂; 9, ♀.)

Male. Primaries greenish-white, white from the end of the cell almost to the outer margin, with a wide brown band near the base crossing from the costal to the inner margin, beyond which are several brown marks and small broken black lines, a submarginal broken brown band edged with a black line on the inner side extending from the apex to the anal angle, the veins along the outer margin each with a small brown streak on either side; secondaries creamy-white, crossed below the middle from the costal to the inner margin by a very indistinct waved greyish line, the fringe greyish; the underside greyish-white, the primaries with dark markings as above, but much less distinct: head and thorax greenish-white, the antennæ and palpi black, the abdomen and legs pale brown, the abdomen with a black spot on the middle of each segment.—*Female*. Very similar to the male, but much more deeply coloured. Expanse, ♂ $1\frac{3}{4}$, ♀ 2 inches.

Hab. MEXICO, Milpas in Durango 5900 feet (*Forrer*), Real del Monte in Hidalgo (*M. Trujillo*).

Allied to *C. pomponia*, from which it may be easily distinguished by its white hind wings.

5. **Cidaria cyriades**, sp. n. (Tab. LVI. fig. 10, ♂.)

Male. Primaries pale green, crossed near the base from the costal to the inner margin by three brown bands, which are wider in some specimens than in others, and with two brown marks close to the apex, and several brown spots along the outer margin close to the anal angle, the fringe alternately green and brown; secondaries white, with a fine brown streak on each side of the veins round the outer margin, the fringe white; the underside white, the primaries with dark markings as above, but much less distinct: head and thorax greenish, the antennæ, palpi, abdomen, and legs pale brown.—*Female*. Very similar to the male, but with the markings on the primaries rather larger, darker, and more distinct. Expanse, ♂ $1\frac{3}{10}$, ♀ $1\frac{1}{2}$ inch.

Hab. MEXICO, Coatepec (*Brooks*), Las Vigas (*coll. Schaus*).

We figure a male from Coatepec. An example of the same sex in Mr. Schaus's collection is rather smaller than ours.

HYDRIOMENA.

Hydriomena, Hübner, Verz. bek. Schmett. p. 322 (1816); Packard, in Report of the U.S. Geol. Survey of the Territ. x. p. 90, t. 1. fig. 6 (neurulation).

Ypsipetes, Stephens, Nomencl. Brit. Ins. p. 44 (1829); Guenée, Sp. gén. des Lép. x. p. 376; Walker, Cat. xxiv. p. 1266.

This genus is represented in our region by seven species, two of which are common to Europe and North America. The Central American representatives are mostly from a great elevation.

1. **Hydriomena sordidata**. (Tab. LVI. figg. 11–15, ♂, 16, ♀, vars.)

Phalæna sordidata, Fabr. Ent. Syst. iii. 2, p. 185¹.

Hydriomena sordidata, Pack. in Report of the U.S. Geol. Survey of the Territ. x. p. 96, t. 8. figg. 31, 34, 35².

Geometra elutata, Hübn. Europ. Schmett., Geom. t. 43. fig. 224, t. 74. figg. 381–385³.

Ypsipetes elutata, Guen. Sp. gén. des Lép. x. p. 378⁴; Walk. Cat. xxiv. p. 1267⁵.

Hab. NORTH AMERICA, California², Sanzalito².—GUATEMALA (*Conradt, in mus. Staudinger*), Totonicapam 8500 to 10,500 feet (*Champion*).—EUROPE^{4 5}.

The numerous specimens received (about fifty) from Mexico and Guatemala vary to a great extent, and I am quite unable to separate them from others from Europe. The insect also occurs in California. Many of the Central-American examples are almost identical with some of the English ones in my own collection. We figure six beautiful varieties, five males and one female, all from the summit of the Cordillera, Totonicapam, Guatemala. According to Mr. Champion, the insect is not uncommon in the Los Altos region of Guatemala, where it may be found on the trunks of pines in the daytime.

For the full synonymy of this species see Walker⁵ and Packard².

2. *Hydriomena trifasciata*.

Phalæna (Geometra) trifasciata, Borkh. Europ. Schmett. v. p. 308 (1794)¹.

Hydriomena trifasciata, Pack. in Report of the U.S. Geol. Survey of the Territ. x. p. 91, t. 8. fig. 29².

Hydriomena impluviata, Steph. Cat. Brit. Lep. p. 195 (1850)³.

Ypsipetes impluviata, Guen. Sp. gén. des Lép. x. p. 377⁴; Walk. Cat. xxiv. p. 1267⁵.

Ypsipetes pluviata, Guen. loc. cit. p. 378⁶; Walk. loc. cit. p. 1268⁷.

Hab. NORTH AMERICA^{6 7}, Labrador², Canada², United States².—MEXICO, Amecameca in Morelos (*F. D. G.*).—EUROPE^{1 4}.

One specimen, captured by Mr. Godman in April 1888.

3. *Hydriomena cuma*, sp. n. (Tab. LVI. fig. 17, ♂.)

Male. Primaries pale greenish-brown, crossed by several very indistinct fine waved brown lines, and with a submarginal smoky-brown line extending from the apex to the anal angle, and a dark brown spot on the inner margin about the middle, the marginal line black, the fringe greenish-brown; secondaries glossy white, the marginal line dark brown, the fringe white; the underside of the primaries dusky brown, that of the secondaries white: head, antennæ, palpi, and thorax greenish-brown, the abdomen and legs pale brown. Expanse $1\frac{3}{10}$ inch.

Hab. GUATEMALA, Totonicapam 10,000 feet (*Champion*).

One specimen. Allied to *H. sordidata* (Fabr.), from which it may be at once distinguished by the white hind wings.

4. *Hydriomena proba*, sp. n. (Tab. LVI. figg. 18, ♂; 19, ♀.)

Male. Primaries dark brown, crossed from the costal to the inner margin by greyish-brown bands, the fringe dark brown; secondaries reddish-fawn-colour, the marginal line brown, the fringe alternately brown and fawn-colour; the underside brownish-fawn-colour, the primaries with several dark brown spots on the costal margin: head, antennæ, palpi, thorax, abdomen, and legs brown.—*Female*. Similar to the male, but with the markings greyer and more distinct on the primaries. Expanse, ♂ $1\frac{3}{4}$, ♀ $1\frac{1}{2}$ inch.

Hab. MEXICO, Puebla 7000 feet (*F. D. G.*), Las Vigas in Vera Cruz (*coll. Schaus*).

We figure a rather dark male captured by Mr. Godman in April 1888, and a female from Las Vigas in Mr. Schaus's collection.

5. *Hydriomena cydra*, sp. n. (Tab. LVI. figg. 20, ♂; 21, ♀.)

Male. Primaries dull brownish-green, crossed from the costal to the inner margin by four bands of dark brown spots, some of which are indistinct, and with a large brown spot close to the apex, the marginal line dark brown, the fringe alternately green and dark brown; secondaries smoky brown, the marginal line darker, the fringe alternately light and dark brown; the underside pale smoky brown: head and thorax pale green, the antennæ, abdomen, and legs brown.—*Female*. Similar to the male, but larger and with the bands more distinct. Expanse, ♂ $1\frac{1}{2}$, ♀ $1\frac{3}{4}$ inch.

Hab. GUATEMALA, Totonicapam 8500 to 10,500 feet, Volcan de Agua 8500 to 10,000 feet (*Champion*).

Five males and three females. This species varies slightly in the distinctness of the markings on the primaries. We figure a pair from Totonicapam.

6. *Hydriomena dada*, sp. n. (Tab. LVI. figg. 22, ♂; 23, ♀.)

Male. Primaries greyish-brown, crossed about the middle from the costal to the inner margin by a wide dark brown band, beyond which the wing is clouded with reddish-brown, and with some dark brown markings near the apex, and some detached dark brown spots along the outer margin; secondaries pale grey, the fringe greyish-brown; the underside of the primaries brown, with the apex, outer and inner margins pale grey, that of the secondaries pale grey: head, antennæ, and thorax brown, the abdomen and legs greyish-brown.—*Female*. Similar to the male, but with the markings on the primaries paler and more indistinct. Expanse, ♂ ♀, $1\frac{1}{2}$ inch.

Hab. MEXICO, Milpas in Durango 5900 feet (*Forrer*).

Two examples.

7. *Hydriomena cynosura*, sp. n. (Tab. LVI. fig. 24, ♂.)

Male. Primaries pale greyish-fawn-colour, crossed beyond the middle from the costal to the inner margin by a rather wide reddish-fawn-coloured band, and with two zigzag black lines crossing nearer the base, the fringe alternately dark and light fawn-colour; secondaries pale greyish-fawn-colour, the fringe paler; the underside pale greyish-white: head, thorax, antennæ, and palpi pale brown, the abdomen and legs greyish-brown. Expanse $1\frac{7}{10}$ inch.

Hab. MEXICO, Las Vigas in Vera Cruz (*coll. Schaus*).

One specimen.

EPIRRHOE.

Epirrhoe, Hübner, Verz. bek. Schmett. p. 328 (1816).

1. *Epirrhoe privernaria*.

Larentia privernaria, Herr.-Schäff. Samml. aussereur. Schmett. pp. 66, 83, figg. 408, 409¹.

Spargania (?) *privernaria*, Guen. Sp. gén. des Lép. x. p. 455²; Walk. Cat. xxv. p. 1376³.

Hab. GUATEMALA (*Conradt, in mus. Staudinger*).—VENEZUELA^{1 2 3}.

One specimen from Guatemala, a female, very similar to Herrich-Schäffer's figure, but more dusky at the base and inner portion of the secondaries.

2. **Epirrhoe crypta**, sp. n. (Tab. LVI. fig. 25.)

Primaries pale greenish-fawn-colour, crossed about the middle by a wide waved dark brown band, which is edged on each side with a narrow waved white line, a submarginal waved white line extending from the apex to the anal angle, the costal margin spotted with brown; secondaries yellow, with the base, anal angle, and part of the outer margin dusky brown; the underside pale yellow, without markings: head, thorax, abdomen, and legs greenish-fawn-colour, the antennæ pale brown. Expanse $1\frac{3}{10}$ inch.

Hab. PANAMA, Volcan de Chiriqui 2000 to 4000 feet (*Champion*).

Two specimens. Allied to *E. privernaria*, but differing from it by the plain yellow underside.

3. **Epirrhoe दौरa**, sp. n. (Tab. LVI. fig. 26, ♂.)

Male. Primaries greyish-brown, crossed about the middle from the costal to the inner margin by a wide dark brown band, which is edged on the outer side with fine greyish-white waved lines; secondaries pale yellow, the marginal line brown; the fringe greyish-brown; the underside pale yellowish-brown, with indistinct bands on the primaries: head, thorax, and abdomen pale brown.—*Female.* Very similar to the male, but rather darker in colour, and with the lines crossing the primaries more distinct. Expanse, ♂ $1\frac{1}{10}$, ♀ $1\frac{3}{10}$ inch.

Hab. MEXICO, Orizaba (*F. D. G.*), Coatepec (*Brooks*), Las Vigas (*coll. Schaus*).

We figure a male from Mr. Schaus's collection.

4. **Epirrhoe cyllene**, sp. n. (Tab. LVI. fig. 27.)

Primaries pale yellowish-green shaded with brown, thickly striated with pale blue metallic lines, and crossed from the costal to the inner margin by three waved brown lines—the first near the base, the second beyond the middle, edged with white, and the third submarginal; secondaries pale fawn-colour, darker round the outer margin; the fringe fawn-colour; the underside orange-yellow: head, thorax, antennæ, and legs greenish-brown; (abdomen wanting). Expanse $1\frac{1}{4}$ inch.

Hab. COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).

One specimen.

5. **Epirrhoe psyra**, sp. n. (Tab. LVI. fig. 28, ♂.)

Male. Primaries dark brown, with a distinct black spot at the end of the cell, crossed near the base from the costal to the inner margin by two pale yellowish-brown lines, a third waved yellowish-brown line crossing the wing beyond the middle, and a pale yellowish-brown band extending from the costal margin to the middle of the outer margin, the fringe dark brown; secondaries pale yellow, the apex and outer margin broadly bordered with blackish-brown, the fringe dark brown; the underside of the primaries brown, crossed beyond the middle by a wide yellow band, that of the secondaries very much as above, but with a black spot at the end of the cell: head, antennæ, thorax, abdomen, and legs brown, the collar and tegulæ yellowish-brown.—*Female.* Very similar to the male, but with the light markings slightly wider. Expanse, ♂ $1\frac{1}{10}$, ♀ $1\frac{1}{4}$ inch.

Hab. GUATEMALA (*Conradt, in mus. Staudinger*), Las Mercedes 3000 feet (*Champion*).

The three specimens before me are almost identical. We figure a male from Las Mercedes.

6. *Epirrhoe fringillata*.

Cidaria fringillata, Guen. Sp. gén. des Lép. x. p. 462¹; Walk. Cat. xxv. p. 1393².

Hab. MEXICO, State of Durango (*Forrer*), Jalapa (*Trujillo & coll. Schaus*), Cordova (*Rümeli*), Coatepec (*Brooks*), Orizaba (*F. D. G.*), Atoyac in Vera Cruz (*H. H. Smith*); GUATEMALA, San Gerónimo, Volcan de Atitlan 2500 to 3500 feet (*Champion*); COSTA RICA, Rio Sucio (*Rogers*).—ECUADOR; BRAZIL^{1 2}.

This species is exceedingly variable in size and colour, and in the distinctness of the line crossing the primaries. I have a very large series of specimens before me, hardly two of which are alike.

7. *Epirrhoe circumcidata*.

Cidaria circumcidata, Snell. Tijdschr. voor Ent. xvii. p. 94, t. 7. fig. 3¹.

Hab. COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).—COLOMBIA, Bogota¹; ECUADOR.

One specimen from Costa Rica, very similar to Snellen's figure.

8. *Epirrhoe pompilia*, sp. n. (Tab. LVII. fig. 1.)

Primaries dark brown, crossed from the costal to the inner margin by four very indistinct waved greenish-brown lines; secondaries smoky black, darker at the apex and round the outer margin: head, antennæ, and thorax dark brown, the abdomen and legs blackish-brown. Expanse $1\frac{3}{10}$ inch.

Hab. PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*).

One specimen, which I believe to be a female.

9. *Epirrhoe infundibulata*.

Coremia infundibulata, Guen. Sp. gén. des Lép. x. p. 412¹; Walk. Cat. xxv. p. 1309².

Melanippe producta, Walk. loc. cit. p. 1297³.

Cidaria instipata, Walk. loc. cit. p. 1394⁴.

Hab. COSTA RICA, Volcan de Irazu 6000 to 7000 feet, Rio Sucio (*Rogers*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—COLOMBIA¹; VENEZUELA^{2 3 4}; BRAZIL^{1 2 4}.

This species varies in the extent of the markings on the primaries.

10. *Epirrhoe extensata*.

Cidaria extensata, Walk. Cat. xxv. p. 1394¹.

Hab. COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).—COLOMBIA, Bogota¹; ECUADOR.

The only specimen received from our region is of a browner colour than any of those from Ecuador in my own collection.

11. *Epirrhoe lichenea*?

Cidaria lichenea, Oberth. Etudes d'Ent. vii. p. 34, t. 3. fig. 6¹.

Hab. GUATEMALA, Totonicapam 10,000 feet (*Champion*).—PERU, Tambillo¹.

One worn specimen, possibly belonging to this species.

12. *Epirrhoe* — ?

Hab. MEXICO, Paso de San Juan in Vera Cruz (*coll. Schaus*); GUATEMALA, San Gerónimo (*Champion*).

Several specimens, none of them in sufficiently good condition to describe.

13. *Epirrhoe conglomerata*.

Cidaria conglomerata, Walk. Cat. xxv. p. 1395¹.

? *Spargania cultata*, Guen. Sp. gén. des Lép. x. p. 455²; Walk. Cat. xxv. p. 1376³.

Hab. MEXICO, Jalapa (*M. Trujillo & coll. Schaus*), Cuesta de Misantla (*M. Trujillo*); GUATEMALA (*Conradt, in mus. Staudinger*), Purula in Vera Paz (*Champion*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—VENEZUELA¹; BRAZIL¹.

A common species within our limits. It is exceedingly variable, some specimens being almost white, while others are well marked with brown lines; hardly two specimens are alike. The locality for *Spargania cultata* was unknown to Guenée². If Guenée's and Walker's names really apply to the same species, the name *cultata* will have to be retained.

MELANIPPE.

Melanippe, Duponchel, Hist. Nat. Lép. Fr., Nocturnes, iv. 2, p. 111 (1829); Walker, Cat. xxv. p. 1281.

This genus is represented in our region by two species, both of them apparently rare. From North America a considerable number of species are known.

1. *Melanippe pontina*, sp. n. (Tab. LVII. fig. 2.)

Primaries and secondaries greyish-white; the primaries with the base and three waved bands crossing from the costal to the inner margin pale brown, the third band being broken into spots and edged with a white line on the outer side, a submarginal row of small black dots extending from the apex almost to the anal angle, the marginal line spotted with black, the fringe greyish-white; the secondaries with the marginal line spotted with black near the anal angle; the underside greyish-white, the primaries with the apex and a spot at the end of the cell blackish-brown: head, thorax, abdomen, and legs greyish-brown, the antennæ pale brown. Expanse $1\frac{4}{10}$ inch.

Hab. MEXICO, Jalapa (*M. Trujillo*), Teapa in Tabasco (*H. H. Smith*); GUATEMALA, San Gerónimo (*Champion*).

This species varies in the distinctness of the brown bands crossing the primaries.

2. *Melanippe cyarda*, sp. n. (Tab. LVII. fig. 3.)

Female. Primaries and secondaries white; the primaries with the base, costal margin, a wide band partly crossing the wing, the apex, and a round spot on the inner margin fawn-colour; the secondaries with the outer margin dusky; the fringe greyish-white: head, thorax, abdomen, and legs brownish-white, the antennæ pale brown. Expanse $1\frac{1}{2}$ inch.

Hab. MEXICO, Coatepec (*Brooks*).

One specimen, in poor condition.

COREMIA.

Coremia, Guenée, Sp. gén. des Léop. x. p. 408 (1857); Walker, Cat. xxv. p. 1303.

Walker has enumerated forty-seven species of this genus from all parts of the world. From within our limits we have received representatives of six species, four of which are described as new.

1. *Coremia cinereolimitata*. (Tab. LVII. fig. 4, ♂.)

Cidaria cinereolimitata, Thierry-Mieg, Le Nat. 1892, p. 235¹.

Hab. COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*).—COLOMBIA¹; ECUADOR; BRAZIL.

We figure a male from the Volcan de Irazu. It agrees perfectly with the type, which has been kindly submitted to me by Mons. P. Thierry-Mieg.

2. *Coremia convallaria*.

Coremia convallaria, Guen. Sp. gén. des Léop. x. p. 410¹; Walk. Cat. xxv. p. 1308².

Coremia defensaria, Guen. loc. cit. p. 411³; Walk. Cat. xxv. p. 1308⁴.

Hab. NORTH AMERICA, California^{1 2 3 4}.—MEXICO, Milpas in Durango 5900 feet (*Forrer*), Las Vigas (*coll. Schaus*), Orizaba (*F. D. G.*).

We have received a few specimens of this insect, all in poor condition.

3. *Coremia procilla*, sp. n. (Tab. LVII. fig. 5.)

Male. Primaries and secondaries pale brown, the primaries with the base and a wide band crossing about the middle from the costal to the inner margin dark brown, the fringe of both wings brown; the underside pale reddish-brown: head, antennæ, thorax, abdomen, and legs brown. Expanse $1\frac{1}{10}$ inch.

Hab. GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).

This species varies in the distinctness of the band crossing the primaries. We figure a dark-banded specimen.

4. *Coremia praxila*, sp. n. (Tab. LVII. fig. 6.)

Primaries pale brown, crossed from the costal to the inner margin by two bands—the first near the base, very dark brown, the second reddish-brown,—and with a pale brown spot at the apex, the fringe brown; secondaries cream-colour, slightly spotted with brown on the inner margin; the underside cream-colour, slightly irrorated with brown scales: head, antennæ, thorax, and abdomen dark brown. Expanse 1 inch.

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Hab. GUATEMALA, Quiché Mountains 9000 feet (*Champion*).

One specimen. Allied to *C. procilla*.

5. *Coremia cyllene*, sp. n. (Tab. LVII. fig. 7.)

Male. Primaries and secondaries pale greyish-fawn-colour; the primaries crossed from the costal to the inner margin by a wide brown band, which is waved on the outer side and edged with a greyish line, a sub-marginal row of very minute greyish dots extending from the apex to the anal angle, the fringe pale fawn-colour; the secondaries darker at the base and round the outer margin from the apex to the anal angle, the fringe greyish-fawn-colour; the underside much as above, but paler in colour: head, thorax, abdomen, and legs brownish-fawn-colour. Expanse 1 inch.

Hab. MEXICO, Amecameca in Morelos (*F. D. G.*).

Two specimens, captured by Mr. Godman in April 1888.

6. *Coremia cyane*, sp. n. (Tab. LVII. fig. 8.)

Primaries dark reddish-fawn-colour, crossed about the middle from the costal to the inner margin by a rather wide blackish-brown band; secondaries greyish-white, dusky at the anal angle and round the outer margin; the fringe dark grey; the underside dark greyish-brown: head, antennæ, thorax, and abdomen brown. Expanse 1 inch.

Hab. COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).

One specimen.

PSALIODES.

Psaliodes, Guenée, Sp. gén. des Lép. x. p. 480 (1857); Walker, Cat. xxv. p. 1428.

Walker, in his Catalogue, included five species in this genus, all of which are from Tropical South America, and others have since been described by Snellen.

Twenty species are here enumerated from within our limits, seventeen of which are described as new.

1. *Psaliodes nucleata*.

Psaliodes nucleata, Guen. Sp. gén. des Lép. x. p. 481¹; Walk. Cat. xxv. p. 1429².

Hab. GUATEMALA, Cerro Zunil 4000 to 5000 feet, San Isidro 1600 feet (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet, Caché (*Rogers*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—BRAZIL^{1 2}.

I have only seen five specimens of this apparently rare species.

2. *Psaliodes crotona*, sp. n. (Tab. LVII. fig. 9.)

Male. Primaries yellowish-fawn-colour, dark brown along the costal margin, with a broken brown band crossing about the middle, a large dark brown patch on the outer margin close to the apex, and four fine zigzag white lines crossing from the costal to the inner margin, the fringe yellow and brown; secondaries greyish-white, the fringe yellowish: head, antennæ, thorax, and abdomen brown. Expanse 1 inch.

Hab. MEXICO, Jalapa, Las Vigas (*coll. Schaus*); GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).

This species is allied to *P. nucleata*, Guen. It varies in colour and in the distinctness of the markings on the primaries. We have a good series of specimens from Totonicapam.

3. **Psaliodes pomona**, sp. n. (Tab. LVII. fig. 10, ♂.)

Male. Primaries brown, crossed from the costal to the inner margin by four waved white lines and from the costal margin near the apex to the outer margin by a curved white line (this line is much more distinct in some specimens than in others), the fringe dark brown; secondaries brownish-grey; the underside reddish-brown: head, antennæ, thorax, and abdomen brown. Expanse $1\frac{3}{10}$ inch.

Hab. MEXICO, Coatepec (*coll. Schaus*); GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).

Allied to *P. crotona*, from which it may be distinguished by its larger size and darker brown colouring. The Mexican specimen in Mr. Schaus's collection has the primaries more distinctly marked than in either of the other specimens before me, but on the underside it is almost identical with them.

4. **Psaliodes damia**, sp. n. (Tab. LVII. fig. 11.)

Primaries and secondaries dark brown; the primaries irrorated at the apex and near the anal angle with pale brown scales, and crossed beyond the middle from the costal to the inner margin by a paler brown band, which is edged on the inner side with a very fine waved white line; the fringe of both wings alternately light and dark brown: head, antennæ, thorax, abdomen, and legs brown. Expanse 1 inch.

Hab. GUATEMALA, San Isidro 1600 feet (*Champion*).

One specimen, probably a female.

5. **Psaliodes cydna**, sp. n. (Tab. LVII. fig. 12, ♂.)

Male. Primaries and secondaries white; the primaries with the base, costal margin, a wide band crossing from the costal to the inner margin, and a large spot on the outer margin close to the apex dark brown, the fringe alternately brown and white; the secondaries faintly tinged with brown at the apex and round the outer margin, the fringe white; the underside brownish-white, the primaries yellowish-brown along the costal margin: head and palpi white, the thorax, abdomen, legs, and antennæ brown.—

Female. Very similar to the male. Expanse 1 inch.

Hab. MEXICO, Omilteme in Guerrero 8000 feet (*H. H. Smith*); GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*).

Varies in the width of the brown band crossing the primaries: in the Mexican specimens it is narrow and more broken. We figure a specimen from Totonicapam.

6. **Psaliodes dædala**, sp. n. (Tab. LVII. figg. 13, ♀; 14, ♂, var.)

Male. Primaries pale greenish-brown, darker along the outer margin, crossed close to the base from the costal to the inner margin by a fine white waved line, and about the middle by a wide dark brown waved band, the latter edged on either side with a white line, a submarginal row of small white dots extending from the costal margin to the anal angle, the fringe alternately light and dark brown; secondaries pale brownish-white, crossed about the middle by a very indistinct line, the fringe greenish-brown; the underside pale greyish-brown, the primaries with the costal margin and the apex yellow, the secondaries

crossed by a dark brown line and with a yellow spot at the end of the cell: head, thorax, and tegulae yellowish-brown, the antennae, abdomen, and legs brown.—*Female*. Very similar to the male. Expanse, ♂ 1, ♀ $1\frac{1}{4}$ inch.

Hab. MEXICO, Coatepec (*coll. Schaus*); GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).

The Mexican specimen is in very poor condition, but I believe it belongs to the same species as those from Guatemala. We figure a female from Totonicapam and a beautiful variety of the male from the same locality.

7. *Psaliodes damophila*, sp. n. (Tab. LVII. fig. 15, ♂.)

Male. Primaries brown, crossed beyond the middle from the costal to the inner margin by a waved white band, followed by a reddish-fawn-coloured band, the fringe alternately brown and grey; secondaries greyish-white, the marginal line brown, the fringe grey; the underside of the primaries greyish-brown, with the costal margin yellow, that of the secondaries grey, thickly irrorated with dark brown scales: head, antennae, thorax, and abdomen yellowish-brown. Expanse 1 inch.

Hab. MEXICO, Las Vigas (*coll. Schaus*).

One specimen.

8. *Psaliodes potina*, sp. n. (Tab. LVII. fig. 16.)

Primaries brownish-yellow, with the base, a wide waved band crossing about the middle, and the outer margin near the apex and at the anal angle dark brown, the brown band edged with a white line on either side, the fringe alternately brown and yellow; secondaries pale reddish-brown, darker round the outer margin from the apex to the anal angle, the fringe yellow; the underside of the primaries reddish-brown, marked as above, that of the secondaries yellow, thickly irrorated with dark brown scales, and with a small dot at the end of the cell and a zigzag line crossing the wing below the middle dark brown: head, antennae, thorax, and abdomen yellowish-brown. Expanse 1 inch.

Hab. MEXICO, Coatepec (*coll. Schaus*).

Mr. Schaus informs me that this species is common at Coatepec. I have only seen one specimen of it.

9. *Psaliodes cyra*, sp. n. (Tab. LVII. fig. 17, ♂.)

Male. Primaries grey, crossed near the base by two zigzag black lines and beyond the middle by a wide fawn-coloured band, the latter edged on either side with a dentated black line, the fringe alternately black and grey; secondaries greyish-white, crossed below the middle by a very faint waved line; the underside greyish white: head, antennae, thorax, and abdomen greyish-fawn-colour. Expanse 1 inch.

Hab. MEXICO, Coatepec (*coll. Schaus*).

One specimen.

10. *Psaliodes detractata*.

Psaliodes detractata, Walk. Cat. xxv. p. 1429¹.

Hab. MEXICO, Jalapa (*M. Trujillo*), Coatepec (*coll. Schaus*); GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).—VENEZUELA¹.

Varies in colour and in the distinctness of the markings. The females are generally paler than the males.

11. **Psaliodes cynthia**, sp. n. (Tab. LVII. fig. 18.)

Primaries pale brown, crossed near the base and from the costal margin near the apex to the outer margin by very fine silvery-white lines, the fringe alternately brown and grey; secondaries uniformly pale greyish-brown; the underside pale brownish-grey, the costal margin of the primaries slightly tinged with yellow: head, antennæ, thorax, and abdomen pale greyish-brown. Expanse 1 inch.

Hab. GUATEMALA, San Gerónimo (*Champion*); COSTA RICA, Rio Sucio (*Rogers*).

We figure the specimen from San Gerónimo; those from Costa Rica are in very poor condition.

12. **Psaliodes porcia**, sp. n. (Tab. LVII. fig. 19.)

Primaries greyish-white, with the base and a wide band crossing about the middle from the costal to the inner margin reddish-brown, the median band edged on the inner side with a white line and on the outer side with two waved white lines, a reddish-brown spot on the outer margin just below the apex, the marginal line dark brown, the fringe greyish; secondaries greyish-white; the underside grey, slightly irrorated with brown scales: head, antennæ, thorax, and legs pale brown. Expanse 1 inch.

Hab. GUATEMALA, Quiché Mountains 9000 feet (*Champion*).

One specimen.

13. **Psaliodes ocreata**.

Psaliodes ocreata, Snell. Tijdschr. voor Ent. xvii. p. 100, t. 7. fig. 6¹.

Hab. PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—? COLOMBIA¹.

One specimen in Dr. Staudinger's collection, very similar to Snellen's figure.

14. **Psaliodes cunina**, sp. n. (Tab. LVII. fig. 20.)

Primaries and secondaries white; the primaries with the costal margin, apex, and part of the wing above the anal angle pale brown; the secondaries crossed from the costal to the inner margin by three fine brown lines—the first close to the base, the second about the middle, the third submarginal; the fringe of both wings alternately white and brown; the underside very pale brown, with the lines indistinct: head, antennæ, thorax, abdomen, and legs pale brown. Expanse $\frac{3}{4}$ inch.

Hab. GUATEMALA, Totonicapam 8500 feet (*Champion*).

One specimen, probably a female. This species is very distinct from any other known to me.

15. **Psaliodes cronia**, sp. n. (Tab. LVII. fig. 21.)

Primaries reddish-fawn-colour, the secondaries paler; the primaries crossed from the costal to the inner margin by three brown bands—the first narrow and close to the base, the second wide and about the middle, the third submarginal and curved to the shape of the wing; the fringe of both wings reddish-fawn-colour; the underside paler than above, without the bands on the primaries: head, antennæ, thorax, abdomen, and legs dark reddish-fawn-colour. Expanse $\frac{3}{4}$ inch.

Hab. COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).

One specimen.

16. **Psaliodes posides**, sp. n. (Tab. LVII. fig. 22, ♂.)

Male. Primaries and secondaries cream-colour; the primaries thickly irrorated with brown scales, and with a wide brown band crossing about the middle from the costal to the inner margin, beyond which the wing is clouded with brown, the fringe alternately brown and cream-colour; the secondaries slightly irrorated with brown scales: head, antennæ, thorax, and abdomen pale brown. Expanse $\frac{3}{4}$ inch.

Hab. GUATEMALA, Cubilguitz in Vera Paz (*Champion*).

Two specimens. This species is allied to *P. detractata*, Walk., from which it may be distinguished by its smaller size and the very different markings on the primaries.

17. **Psaliodes pronax**, sp. n. (Tab. LVII. fig. 23, ♂.)

Male. Primaries pale olive-brown, crossed from the costal to the inner margin by five dark brown lines—the first three towards the base, the fourth and fifth beyond the middle,—the marginal line spotted with brown, the fringe olive-brown; secondaries greyish-white; the underside brownish-white: head, antennæ, thorax, abdomen, and legs dark brown. Expanse 1 inch.

Hab. GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).

Two specimens, both males.

18. **Psaliodes cromna**, sp. n. (Tab. LVII. figg. 24, ♂; 25, ♀.)

Male. Primaries pale greenish-yellow, crossed towards the base from the costal to the inner margin by a curved rather wide dark brown band, and with two small V-shaped marks on the costal margin and a large triangular mark close to the apex dark brown, a few fine brown lines close to the anal angle, the marginal line dark brown, the fringe alternately greenish-yellow and brown; secondaries pale greyish-brown, pinkish round the outer margin, the fringe alternately brown and grey; the underside greyish-brown, the primaries with dark brown markings on the costal margin as above, but less distinct, the secondaries thickly irrorated with minute brown scales: head, thorax, and abdomen greenish-yellow, the antennæ and palpi dark brown, the legs pale brown.—*Female*. Very similar to the male, but with the brown markings rather larger, and with a pinkish band crossing the primaries beyond the brown band. Expanse, ♂ ♀, $1\frac{3}{10}$ inch.

Hab. GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).

We have only received a pair of this very distinct species.

19. **Psaliodes polyxena**, sp. n. (Tab. LVII. fig. 26, ♂.)

Male. Primaries brownish-green, crossed by broken brown lines, which become wider towards the base, a rather large spot close to the apex and a row of small marginal spots dark brown, the fringe dark brown; secondaries slate-colour; the underside of both wings slate-colour: head and thorax brownish-green, the antennæ and palpi brown, the abdomen slate-colour.—*Female*. Very similar to the male, but rather darker in colour. Expanse, ♂ 1, ♀ $1\frac{3}{10}$ inch.

Hab. MEXICO, Jalapa (*coll. Schaus*), Amula in Guerrero 6000 feet (*H. H. Smith*); COSTA RICA, Rio Sucio, Volcan de Irazu 6000 to 7000 feet (*Rogers*).

The Jalapa specimen is in bad condition, but I believe it belongs to this species. We figure a male from Amula.

20. **Psaliodes cormasa**, sp. n. (Tab. LVII. fig. 27, ♂.)

Male. Primaries greenish-grey, crossed from the costal to the inner margin by four dark brown bands—the first and third in the form of narrow lines, the second and fourth wide, the fourth broken in the middle,—

the marginal line dark brown, the fringe greenish-grey; secondaries slate-colour; the underside greyish-brown: head, thorax, and abdomen greenish-grey, the antennæ, palpi, and legs brown. Expanse $\frac{3}{4}$ inch.

Hab. MEXICO, Coatepec (*coll. Schaus*).

One specimen. Allied to *P. pronax* from Guatemala.

BAGODARES, gen. nov.

Antennæ pectinated in the male, simple in the female; thorax and abdomen slender; primaries short, rather broad, with the costal and outer margins straight and the inner margin slightly curved; secondaries rather long, very much rounded from the apex to the anal angle, the inner margin straight; hind tibiæ with long spurs.

Type *Bagodares prosa*, Druce.

1. *Bagodares prosa*, sp. n. (Tab. LVII. figg. 28, ♂; 29, ♀.)

Male. Primaries and secondaries pale brownish-fawn-colour; the primaries darker along the costal margin and crossed from the apex to the inner margin by three yellowish-brown lines, a fine zigzag submarginal white line extending from the apex to the anal angle, the marginal line black, the outer margin thickly irrorated with white scales, the fringe dark brown; the secondaries crossed from the costal to the inner margin by two yellowish-brown lines—the first close to the base, the second below the middle,—the outer margin from the apex to the anal angle thickly irrorated with white scales; the underside pale greyish-brown, with a yellowish-brown spot close to the apex of the primaries: head, thorax, and abdomen pale brown, the antennæ dark brown.—*Female.* Similar to the male, but darker in colour, and without the white margins to the wings. Expanse, ♂ 1, ♀ $1\frac{1}{10}$ inch.

Hab. GUATEMALA, Volcan de Atitlan 2500 to 3500 feet (*Champion*).

One male and three females.

2. *Bagodares* (?) *sternularia*.

Larentia sternularia, Herr.-Schäff. Samml. aussereur. Schmett. p. 66¹.

Cidaria sternularia, Herr.-Schäff. loc. cit. p. 81, fig. 316²; Walk. Cat. xxvi. p. 1731³.

Hab. MEXICO, Jalapa (*coll. Schaus*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—PERU; BRAZIL^{1 3}.

The seven specimens before me are all females.

DINEURODES.

Dineurodes, Guenée, Sp. gén. des Léop. x. p. 478 (1857); Walker, Cat. xxv. p. 1425.

Two species were placed by Guenée in this genus, which is confined to tropical America.

Two new species from Central America are somewhat doubtfully referred to it.

1. *Dineurodes malachitaria*.

Oligopleura malachitaria, Herr.-Schäff. Samml. aussereur. Schmett. pp. 65, 82, t. 63. ff. 357, 358¹.

Dineurodes malachitaria, Guen. Sp. gén. des Léop. x. p. 479²; Walk. Cat. xxv. p. 1426³.

Hab. MEXICO, Jalapa (*Höge*), Cordova (*Rümel*), Atoyac in Vera Cruz (*H. H. Smith*),

Paso de San Juan (*coll. Schaus*); HONDURAS (*Wittkugel, in mus. Staudinger*); GUATEMALA, Teleman in Vera Paz, Volcan de Atitlan 2500 to 3500 feet (*Champion*).—BRAZIL ^{1 2 3}.

This species appears to be rare. The female is variable.

2. **Dineurodes (?) populonia**, sp. n. (Tab. LVIII. fig. 1, ♀.)

Female. Primaries fawn-colour, dark brown from the base to about the middle of the cell, beyond which the wing is crossed from the costal to the inner margin by very faint narrow waved brown lines, two small dark brown marks on the costal margin close to the apex, a round blackish spot at the anal angle, and on the outer margin near the apex a row of five very minute white dots; secondaries slate-colour, slightly shaded with reddish-brown on the outer margin; the underside pale greyish-brown, irrorated with darker brown scales, the costal margin of the primaries broadly bordered with yellowish-brown: head, thorax, and antennæ dark brown, the abdomen and legs pale brown. Expanse $1\frac{1}{4}$ inch.

Hab. PANAMA, Volcan de Chiriqui 3000 feet (*Champion*).

One specimen.

D. populonia, as will be seen from our figure, differs from *Dineurodes* in the shape of the secondaries; I doubtfully refer it to this genus.

3. **Dineurodes (?) cynossema**, sp. n. (Tab. LVIII. fig. 2, ♂.)

Male. Primaries and secondaries pale greyish-fawn-colour, with a pinkish tinge, which is more distinct on the outer half of the wings, the primaries with two small white streaks on the costal margin close to the base, the fringe dark greyish-brown; the underside of the primaries pink, with the costal margin and the apex pale brown, irrorated with darker brown scales, that of the secondaries pale brown, slightly irrorated with darker scales: head, antennæ, thorax, and legs dark brown, the abdomen fawn-colour. Expanse $1\frac{4}{10}$ inch.

Hab. GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).

Two males of this species have been received.

Subfam. *EUBOLIINÆ*.

EUBOLIA.

Eubolia, Duponchel, Hist. Nat. Lép. Fr. iv. 2, p. 109 (1829); Guenée, Sp. gén. des Lép. x. p. 484; Walker, Cat. xxv. p. 1432.

Twenty-three species were included in this genus by Walker from all parts of the world. Two from the northern part of our region are provisionally referred to it.

1. **Eubolia danae**, sp. n. (Tab. LVIII. fig. 3, ♂.)

Male. Primaries and secondaries brownish-grey, the primaries crossed about the middle from the costal to the inner margin by several very indistinct fine waved darker grey lines, the secondaries with some indistinct greyish streaks partly crossing from the inner margin above the apex: head, antennæ, thorax, and abdomen dark grey.—*Female*. Very similar to the male, but rather more distinctly marked. Expanse $1\frac{3}{4}$ inch.

Hab. MEXICO, Durango city (*Becker*), Amula in Guerrero 6000 feet (*H. H. Smith*); GUATEMALA (*Conradt, in mus. Staudinger*).

One male and two females. We figure the Guatemalan male in Dr. Staudinger's collection.

2. **Eubolia cyda**, sp. n. (Tab. LVIII. fig. 4.)

Male. Primaries and secondaries pale greyish-brown, very thickly irrorated with darker brown scales; the primaries crossed beyond the middle from the costal to the inner margin by a wide dark brown band, which is edged on the inner side with a waved black line, the marginal line and fringe dark brown; the secondaries crossed below the middle by a fine brown line; the underside much as above, but with all the markings very indistinct: head, antennæ, and thorax dark brown, the abdomen and legs pale greyish-brown. Expanse $1\frac{1}{4}$ inch.

Hab. MEXICO, Northern Sonora (*Morrison*), Durango city (*Becker*).

Varies in colour and in the width of the brown band crossing the primaries. We figure a rather dark specimen from Durango city.

Subfam. *SIONINÆ*.

STAMNODES.

Stamnodes, Guenée, Sp. gén. des Lép. x. p. 515 (1857); Walker, Cat. xxv. p. 1458.

The two species known of this genus are both from high altitudes—one from the Altai, the other from the Himalaya Mountains. A third species is now added from the Los Altos region of Guatemala, specimens of which were captured by Mr. Champion at an elevation of from 8500 to 10,500 feet.

1. **Stamnodes proana**, sp. n. (Tab. LVIII. figg. 5, 6.)

Primaries and secondaries chrome-yellow; the primaries with some short greyish bands on the costal margin, and the apex and outer margin broadly bordered with brown, the fringe brown; the secondaries with the fringe alternately brown and yellow; the underside of the primaries very much as above, but with the costal margin, apex, and outer margin thickly irrorated with bright yellow scales, a whitish band separating the dark brown apical portion from the yellow basal part of the wing, and a small white dot on the costal margin near the apex; the underside of the secondaries brown, with the costal margin and apex yellow, thickly irrorated with dark brown scales, a small white dot about the middle of the costal margin: head, thorax, and abdomen yellowish-brown, the antennæ and legs darker brown. Expanse $1\frac{1}{2}$ inch.

Hab. GUATEMALA, Totonicapam 8500 to 10,500 feet (*Champion*).

A fine, distinct species allied to *Cidaria* (*Stamnodes*) *pamphilata*, Feld. & Rogenh., from the Himalaya. I am unable to detect any external difference between the two sexes.

MARMOPTERYX.

Marmopteryx, Packard, in Report of the U.S. Geol. Surv. of the Territ. x. p. 259, t. 3. figg. 3, 3 a (neurulation) (1876).

Packard includes three species in this genus; two others occur in Western Mexico.

1. **Marmopteryx patamon**, sp. n. (Tab. LVIII. figg. 7, 8.)

Primaries and secondaries creamy-white; the primaries with the costal margin, a wide band at the end of the cell extending to the costal margin, the apex, and outer margin dark brown, the fringe greyish-brown; the secondaries with the marginal line and the apex shaded with pale brown, the fringe grey; the under-side of the primaries with the costal margin and apex irrorated with reddish-brown scales, that of the secondaries white, very thickly striated with reddish-brown, leaving a wide white band across the middle of the wing, the fringe white: head, thorax, abdomen, and legs greyish-white, the antennæ brown. Expanse $1\frac{3}{10}$ inch.

Hab. MEXICO, Amula in Guerrero 6000 feet (*H. H. Smith*).

Three specimens, one considerably paler than the others.

2. **Marmopteryx** — ?

Hab. MEXICO, State of Jalisco (*Richardson*).

One specimen, not in sufficiently good condition for determination.

Subfam. *HEDYLINÆ*.

PHELLINODES.

Phellinodes, Guenée, Sp. gén. des Lép. x. p. 523 (1857); Walker, Cat. xxv. p. 1465.

This genus is peculiar to Tropical America. Some of its species have a very extended range.

1. **Phellinodes satellitiata**.

Phellinodes satellitiata, Guen. Sp. gén. des Lép. x. p. 523, Phalén. t. 21. fig. 8¹; Walk. Cat. xxv. p. 1465².

Hab. GUATEMALA, San Gerónimo, Zapote (*Champion*).—BRAZIL^{1 2}.

Guenée's figure is probably taken from a female, though he states it to be a male¹. The male is without the white spots on the primaries; the Guatemalan females agree perfectly with the above-quoted figure.

2. **Phellinodes rubedinaria**. (Tab. LVIII. fig. 9.)

Hedyle rubedinaria, Walk. Cat. xxv. p. 1464¹.

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*); HONDURAS (*Dyson*¹).

One specimen from Tabasco, not differing from Walker's types in the National collection.

3. **Phellinodes ustrinaria**.

Macrosoma ustrinaria, Herr.-Schäff. Samml. aussereur. Schmett. p. 62¹.

Acidalia (?) *ustrinaria*, Herr.-Schäff. loc. cit. p. 80, fig. 196².

Macrophila (?) *ustrinaria*, Walk. Cat. xxv. p. 1466³.

Hab. PANAMA, Bugaba 1000 feet (*Champion*).—GUIANA, Surinam ^{1 3}.

One specimen.

MACROPHILA.

Macrophila, Walker, Cat. xxv. p. 1465 (1862).

Walker founded this genus upon *Macrosoma tipulata*, Hübn., an insect occurring in the southern part of our region.

1. *Macrophila tipulata*.

Macrosoma tipulata, Hübn. Zutr. Samml. exot. Schmett. i. p. 10, figg. 21, 22 ¹; Verz. bek. Schmett. p. 337 ².

Macrophila tipulata, Walk. Cat. xxv. p. 1466 ³.

Hab. PANAMA, Chiriqui (*Ribbe*; *Arcé*, in *mus. D.*), Bugaba 800 to 1500 feet (*Champion*).—BRAZIL ¹; AMAZONS, Pará ³, Ega ³.

This species is fairly common at Bugaba. We have a large series of specimens hardly showing any variation.

HEDYLE.

Hedyle, Guenée, Sp. gén. des Lép. x. p. 521 (1857); Walker, Cat. xxv. p. 1463 (pars).

The type of this genus, *H. heliconaria*, Guen., is very widely distributed in Tropical America, extending northwards to Mexico. *H. rubedinaria*, Walk., as already noted, is a *Phellinodes*.

1. *Hedyle heliconaria*.

Hedyle heliconaria, Guen. Sp. gén. des Lép. x. p. 522 ¹; Walk. Cat. xxv. p. 1463 ².

Hab. MEXICO, Coatepec (*coll. Schaus*), Teapa in Tabasco (*H. H. Smith*); GUATEMALA, Volcan de Atitlan 2500 to 3500 feet, Zapote, Telemán in Vera Paz (*Champion*); HONDURAS (*Dyson* ²); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*); PANAMA, Chiriqui (*Arcé*, in *mus. D.*; *Ribbe*, *Trötsch*, in *mus. Staudinger*), Bugaba, Volcan de Chiriqui (*Champion*), Panama city (*J. J. Walker*).—COLOMBIA; VENEZUELA ²; ECUADOR; GUIANA, Cayenne ¹; AMAZONS, Ega ².

Varies in size and colour, and also in the extent of the white V-shaped marking on the primaries—in some examples this is quite large, in others very small, and in a specimen in Dr. Staudinger's collection it is entirely wanting.

Subfam. ERATEININÆ.

ERATEINA.

Erateina, Doubleday, Trans. Ent. Soc. Lond. v. p. 111 (1849); Guenée, Sp. gén. des Lép. x. p. 525; Walker, Cat. xxv. p. 1466.

This Tropical-American genus is represented in our region by six species, all of which appear to be rare.

1. *Erateina staudingeri*.

Erateina staudingeri, Snell. Tijdschr. voor Ent. xxi. p. 150, t. 8. figg. 14–16¹.

Hab. COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*); PANAMA, Chiriquí (*Arcé, in mus. D.*; *Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—SOUTH AMERICA, ? Peru¹.

I have not seen a specimen of this species from south of the State of Panama.

2. *Erateina ianthe*.

Erateina ianthe, Doubl. Trans. Ent. Soc. Lond. v. p. 114, t. 12. fig. 3¹; Walk. Cat. xxv. p. 1468².

Erateina janthata, Guen. Sp. gén. des Lép. x. p. 527³.

Hab. PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*).—VENEZUELA^{1 2 3}.

One specimen, agreeing perfectly with others from Merida, Venezuela, in my own collection.

3. *Erateina rogersi*, sp. n. (Tab. LVIII. figg. 10, 11.)

Primaries and secondaries black; the primaries with two fine white streaks starting from the base, a blue line along the inner margin extending from the base almost to the apex, a wide hyaline band crossing from the costal margin almost to the anal angle, and a small hyaline spot close to the apex, the fringe black; the secondaries with a wide hyaline streak extending from the costal margin near the base almost to the anal angle, the fringe alternately black and white; the underside of the primaries lake-red, with a second band crossing the wing near the apex, that of the secondaries lake-red, orange-red at the anal angle and partly round the outer margin: head, antennæ, and thorax black; abdomen black above, each segment edged with a very fine white line, beneath greyish; legs greyish. Expanse $1\frac{3}{4}$ inch.

Hab. COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 3000 feet (*Champion*).—PERU.

We figure a specimen from the Volcan de Chiriqui.

4. *Erateina pohliata*.

Erateina pohliata, Feld. & Rogenh. Reise der Nov., Lep. t. 133. figg. 22, 22 a¹.

Hab. GUATEMALA, San Gerónimo, Purula (*Champion*); PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—COLOMBIA, Bogota¹; BOLIVIA.

I have only seen four specimens of this species from our region.

5. *Erateina cyris*, sp. n. (Tab. LVIII. figg. 12, 13.)

Primaries and secondaries deep blue-black, blue in certain lights; the primaries crossed beyond the middle by a wide hyaline band, the fringe black; the secondaries with the central portion hyaline, the veins and fringe black: the underside of the primaries very much as above, but shaded with purple along the costal margin and apical portion, a silvery-white streak extending along the inner margin from the base almost to the anal angle,—that of the secondaries reddish-purple, orange at the base, with a marginal bluish-white line extending from the apex to the anal angle: head, antennæ, thorax, and legs black; abdomen dark glossy-blue, banded with white lines. Expanse $1\frac{3}{4}$ inch.

Hab. GUATEMALA, Zapote (*Champion*); PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*).

This very distinct species is allied to *E. necysia*, Druce, from Colombia. We figure the specimen from Chiriqui in Dr. Staudinger's collection.

6. *Erateina specularia*.

Erateina specularia, Walk. Characters of undescribed Lep. Het. p. 62 (1869)¹.

Erateina thyridiata, Feld. & Rogenh. Reise der Nov., Lep. t. 133. figg. 23, 23 a².

Hab. MEXICO, Jalapa (*Höge*), Misantla (*F. D. G.*); GUATEMALA (*Salvin*²), Cahabon in Vera Paz (*Champion*); COSTA RICA, Rio Sucio, Volcan de Irazu 6000 to 7000 feet (*Rogers*); PANAMA, Chiriqui (*Trötsch*, in *mus. Staudinger*; *Ribbe*).

This species is fairly common within our limits, but I have not seen a specimen of it from south of the State of Panama. The locality of Walker's type is not stated¹.

TROCHIODES.

Trochiodes, Guenée, Sp. gén. des Lép. x. p. 530 (1857).

Odezia, Herrich-Schäffer, Samml. aussereur. Schmett. p. 81.

Guenée founded this genus upon an insect supposed to have come from Brazil.

1. *Trochiodes hæmataria*.

Erateina hæmataria, Herr.-Schäff. Samml. aussereur. Schmett. p. 65, figg. 320, 321¹; Walk. Cat. xxv. p. 1471².

Odezia hæmataria, Herr.-Schäff. loc. cit. p. 81³.

Hab. MEXICO^{1 2}; GUATEMALA, Totonicapam 8500 to 10,500 feet, Quiché Mountains 7000 to 9000 feet (*Champion*).

Our specimens are not nearly so red on the underside of the secondaries as Herrich-Schäffer's figure; they vary in colour, some examples being much paler than others.

2. *Trochiodes polyxena*, sp. n. (Tab. LVIII. figg. 14, 15.)

Male. Primaries and secondaries black, each with a rather large central white spot—that on the primaries oval at the end of the cell and extending downwards, that on the secondaries deeply dentated on the outer edge,—the fringe of the primaries black, of the secondaries white from the apex to the middle of the outer margin, then black to the anal angle; the underside as above, but with the primaries crossed near the apex from the costal to the outer margin by a rather wide white band, and the secondaries with all the veins white: head, antennæ, thorax, and abdomen black, the abdomen banded with fine white lines, the collar and underside of the thorax orange-yellow. Expanse 1½ inch.

Hab. GUATEMALA, Calderas 7000 feet (*Champion*).

Allied to *T. hæmataria*, Herr.-Schäff. The three specimens received do not show any variation.

3. *Trochiodes lithosiata*.

Trochiodes lithosiata, Guen. Sp. gén. des Lép. x. p. 530, Phalén. t. 22. fig. 2¹; Walk. Cat. xxv. p. 1472².

Hab. MEXICO, Omilteme in Guerrero 8000 feet (*H. H. Smith*).—? BRAZIL¹.

The three specimens captured by Mr. Herbert Smith agree fairly well with Guenée's figure, which is not a very good one.

4. **Trochiodes cydonia**, sp. n. (Tab. LVIII. figg. 16, 17.)

Primaries deep black, bright yellow from the base nearly to the middle, and with an indistinct narrow yellow line near the apex; secondaries bright yellow, broadly bordered with black; the fringe black; the underside of the primaries much as above, but with a pale fawn-coloured line crossing near the apex, that of the secondaries pale fawn-colour, streaked with dark red, the apex and part of the outer margin broadly bordered with black: head and antennæ black, the thorax, abdomen, and legs yellow, the abdomen banded with black. Expanse $1\frac{3}{10}$ inch.

Hab. MEXICO, Amula in Guerrero 6000 feet (*H. H. Smith*).

One specimen.

5. **Trochiodes crusa**, sp. n. (Tab. LVIII. fig. 18.)

Male. Primaries and secondaries deep black, with the fringe also black, the primaries with a large oval orange-yellow spot extending from near the base to the end of the cell; the underside much as above, except that the primaries have a small yellow spot on the costal margin towards the apex, the secondaries have the costal margin broadly bordered with yellow, and the fringe is greyish: head, antennæ, abdomen, and legs deep black; thorax deep black, the collar and front yellow. Expanse $1\frac{1}{2}$ inch.

Hab. MEXICO, Amecameca in Morelos (*F. D. G.*).

Mr. Godman captured two males of this very distinct species in April 1888. In one of the specimens there is also a small spot on the upperside of the primaries near the apex.

6. **Trochiodes(?) prusa**, sp. n. (Tab. LVIII. fig. 19.)

Female. Primaries and secondaries deep black, the primaries with an oblique elongate-oval white spot about the middle, the secondaries with the middle portion white, the fringe black; the underside as above, except that the base of both wings and the inner margin of the secondaries are bluish-white: head, antennæ, and thorax black; abdomen black above, greyish-white beneath; legs greyish-white. Expanse $1\frac{1}{4}$ inch.

Hab. GUATEMALA, Purula (*Champion*); PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*), Chiriqui (*Ribbe, in mus. Staudinger*).

Four specimens. We have only received female specimens of this and of the following three species, and I include all of them with some doubt in *Trochiodes*.

7. **Trochiodes(?) proana**, sp. n. (Tab. LVIII. fig. 20.)

Female. Primaries dark brownish-black, with a wide white streak extending from the base to beyond the cell, and a curved yellow submarginal line crossing from the costal margin to the anal angle, the veins partly yellow; secondaries white, broadly bordered with black; the fringe greyish; the underside as above, except that the band crossing the primaries is white instead of yellow: head, thorax, antennæ, abdomen, and legs brownish-black. Expanse $1\frac{1}{2}$ inch.

Hab. COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*).

Three females, all in poor condition.

8. **Trochiodes(?) promenea**, sp. n. (Tab. LVIII. fig. 21.)

Female. Primaries dull brown; secondaries white, bordered with black from the apex to the anal angle, the inner margin and the base dusky; the underside as above, but with a white band crossing the primaries: head, antennæ, thorax, and abdomen brownish-black. Expanse $1\frac{1}{4}$ inch.

Hab. COSTA RICA, Rio Sucio (*Rogers*).

Two worn specimens.

9. **Trochiodes (?) crossa**, sp. n. (Tab. LVIII. fig. 22.)

Female. Primaries black, crossed beyond the middle by an oblique semihyaline wide white band, which does not reach either margin, and with a semihyaline white spot near the apex; secondaries semihyaline-white, broadly bordered with black, the veins all black; the underside whiter than above: head, antennæ, thorax, and legs black (abdomen wanting). Expanse $1\frac{3}{10}$ inch.

Hab. NICARAGUA, Chontales (*Belt*).

One specimen. This species is quite unlike any other known to me.

Subfam. *EMPLOCIINÆ*.

EMPLOCIA.

Emplocia, Herrich-Schäffer, Samml. aussereur. Schmett. p. 81 (1850-58); Guenée, Sp. gén. des Léop. x. p. 531; Walker, Cat. xxv. p. 1472.

This genus is represented in our region by five species, four of which are described as new.

1. **Emplocia primulina**.

Emplocia primulina, Butl. & Druce, Cist. Ent. i. p. 118¹; Butl. Lep. Exot. p. 178, t. 61. fig. 3².

Hab. GUATEMALA, Purula, San Gerónimo, Dueñas, Capetillo, Zapote, Cerro Zunil 4000 to 5000 feet (*Champion*), Volcan de Santa Maria, Pacific Slope (*Richardson*); COSTA RICA, Cartago ^{1 2} (*Van Patten, in mus. D.*).

This species is well figured by Mr. Butler². We have a very large series of it from Guatemala.

2. **Emplocia potentia**, sp. n. (Tab. LVIII. fig. 23.)

Male. Primaries black, with an elongated yellow spot extending from the base to about the middle; secondaries yellow, broadly bordered with black on the costal margin, apex, and outer margin; the fringe black; the underside resembling that of *E. primulina*, Butl. & Druce, but blacker: head, antennæ, and thorax black; abdomen black, banded with yellow; collar and tegulæ yellow. Expanse $1\frac{1}{10}$ inch.

Hab. COSTA RICA, Rio Sucio (*Rogers*).

Allied to *E. primulina*, but smaller and with less yellow on the wings, and the primaries without the yellow apical band. Only two specimens have been received.

3. **Emplocia cynaxa**, sp. n. (Tab. LVIII. figg. 24, 25.)

Primaries and secondaries bright yellow; the primaries with the costal margin from the base to the middle narrowly edged with black, from the middle to the apex broadly bordered with black, the inner margin from the base to the anal angle and the outer margin also broadly bordered with black, the fringe black; the secondaries with the costal margin, apex, part of the inner margin, and the anal angle broadly bordered with black; the underside of the primaries paler than above, that of the secondaries cream-colour, with the base carmine-red: head, antennæ, thorax, abdomen, and legs black, the collar carmine. Expanse $1\frac{3}{10}$ inch.

Hab. GUATEMALA, Quiché Mountains 9000 feet (*Champion*).

One specimen. This species somewhat resembles *Josia ligata* from the same region.

4. **Emplocia prumnides**, sp. n. (Tab. LVIII. figg. 26, 27.)

Male. Primaries black, from the base to beyond the middle orange-yellow, the fringe black; secondaries orange-yellow, the apex, outer margin, and anal angle broadly bordered with black, and with several black spots along the costal and inner margins; the underside of the primaries as above, but with a line partly crossing from the costal margin to near the outer margin and a marginal row of short lines white, that of the secondaries with a marginal row of elongated black spots: head, antennæ, thorax, and legs black, the collar and tegulæ orange; abdomen black, banded with orange. Expanse $1\frac{3}{10}$ inch.

Hab. PANAMA, Volcan de Chiriqui 3000 feet (*Champion*).

One specimen, quite unlike any other species known to me.

5. **Emplocia tortricina**, sp. n. (Tab. LVIII. figg. 28, 29, ♂; 30, ♀.)

Male. Primaries and secondaries orange-red; the primaries bordered with black on the costal margin near the base, the apex and outer margin broadly bordered with black, the inner margin edged with black from the base to the anal angle, a narrow band near the apex and two or three streaks on the outer margin close to the anal angle reddish-orange; the secondaries with three spots about the middle, and a sub-marginal and a marginal row of elongated spots all black; the fringe alternately black and orange; the underside as above, but with the costa, apex, and outer margin of the primaries streaked with white: head, antennæ, and thorax black; tegulæ black, edged with yellow; abdomen black, banded with yellowish-white; legs black and white.—*Female*. Similar to the male, but with the black margin of the primaries broken up into rows of spots. Expanse, ♂ $1\frac{1}{4}$, ♀ $1\frac{1}{2}$ inch.

Hab. COSTA RICA, Rio Sucio (*Rogers*).

We have a large series of this species. The female somewhat resembles *Aterica leopardina*, Butl., from the same region.

Fam. SICULIDÆ.

This family is of small extent. It has recently been monographed by Dr. A. Pagenstecher in the 'Iris,' v. pp. 5–131 (1892); he divides the Siculidæ into three subfamilies and the genus *Siculodes* into ten groups; 170 species are enumerated for the entire family, no less than 113 of which belong to *Siculodes*. The Siculidæ are chiefly confined to the warmer portions of the globe, being about equally numerous in species in the Neotropical and Oriental regions. Of the six genera referred to it by Dr. Pagenstecher, four are common to the Old and New World; one of these, *Dysodia*, Clemens (= *Varnia*, Walk.; = *Pachythyris*, Feld., Guen.), has been already dealt with by me under the Family Noctuidæ, *anteà*, i. pp. 324–326. *Dysodia* would, no doubt, be better placed in the Siculidæ.

RHODONEURA.

Rhodoneura, Guenée, Sp. Gén. des Lép., Siculides, t. 1. fig. 8 (1857); Ann. Soc. Ent. Fr. 1877, p. 287; Walker, Cat. xxxii. p. 523; Moore, Lep. Ceyl. iii. p. 267; Pagenstecher, Iris, v. p. 48. *Oscia*, Walker, Journ. Linn. Soc., Zool. vii. p. 73 (1864).

Dr. Pagenstecher includes nineteen species in this genus from various localities in the Oriental region. It is also represented within our limits.